

Notice of Allowability

Application No.

10/775,270

Examiner

David Nhu

Applicant(s)

KIM ET AL.

Art Unit

2818

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/11/05.
2. ☒ The allowed claim(s) is/are 1-12.
3. ☒ The drawings filed on 12 February 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

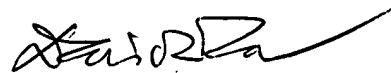
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____



REASONS FOR ALLOWANCE

1. Claims 1-12 are allowed.
2. The following is an examiner's statement of reasons for allowance: None of the references of record teaches or suggests in claims 1, 7: forming source/drain regions in the substrate at opposite edges of the gate wire by selectively ion-implanting a high density of an impurity of a second conductivity type; forming an inter-level insulating layer having a plurality of contact holes to expose predetermined portions of the gate wire and junction diode; simultaneously forming a metal wire coupled to the gate wire, and a dummy metal pattern coupled to the junction diode by selectively etching the metal layer to expose predetermined portions of a surface of the inter-level insulating layer (as cited in claim 1); forming source/drain regions in the well of the first conductivity type at opposite edges of the gate wire by selectively ion-implanting a high density of an impurity of a second conductivity type in the well of the first conductivity type; forming a second junction diode formed in the well of the second conductivity type at a predetermined distance apart from the first junction diode by selectively ion-implanting a high density of an impurity of the first conductivity type in the well of the second conductivity type; forming an inter-level insulating layer over the gate wire and the first and second junction diodes, the inter-level insulating layer including a plurality of contact holes to expose predetermined portions of the gate wire and the first and second diodes; simultaneously forming a metal wire coupled to the gate wire, and a dummy metal pattern coupled to the junction diode by selectively etching the metal layer to expose predetermined portions of a surface of the inter-level insulating layer (as cited in claim 7).

Art Unit: 2818

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

CONCLUSION

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Kim et al (6,717,209 B1): Semiconductor Device Having Junction Diode and Fabricating Method Therefor.

Noguchi (6,365,939 B1): Semiconductor Protection Device.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Nhu, (571)272-1792. The examiner can normally be reached on Monday-Friday from 7:30 AM to 5:00 PM.

The examiner's supervisor, David Nelms can be reached on (571)272-1787.

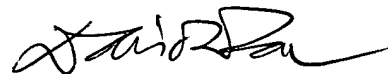
The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

David Nhu



Art Unit 2818



DAVID NHU
PRIMARY EXAMINER